APRIL/MAY 2023

UEL51/BEL51/CEL51— MICROPROCESSOR AND ITS APPLICATIONS

Time : Three hours Maximum : 75 marks

SECTION A — (10 × 2 = 20 marks)

Answer ALL questions.

1. What is flag?
2. What is timing and control unit?
3. What operation is performed for PUSH rp instruction?
4. What is stack?
5. What are the types of semiconductor memories?
6. What is instruction cycle?
7. What is control word?
8. What is trap?
9. What is the use of data bus buffer?
10. What are different operating modes of Intel 8254?

SECTION B — (5 × 5 = 25 marks)

Answer ALL questions.

11. (a) Write an assembly language program for multiplication.

Or

(b) What are the registers in 8085 microprocessor? Explain them briefly.

12. (a) Explain the concept of delay calculations.

Or

(b) What are the instructions using for data transfer? Explain.

13. (a) Draw and explain the timing diagram for memory write operation.

Or

(b) Explain the memory mapped I/O scheme.

14. (a) Explain SIM and RIM instructions.

Or

(b) Write a note on control word register.

15. (a) Explain the internal architecture of Intel 8279.

Or

(b) Discuss the different operating modes of Intel 8255.

SECTION C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Describe the instruction set of 8085.

17. Discuss the subroutine programme for code conversions.

18. Explain the instruction cycle and machine cycle.

19. Discuss the maskable interrupt.

20. Write a program to interface in traffic light controller with 8085

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